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http://daac.gsfc.nasa.gov

The Web Hierarchical Ordering Mechanism (WHOM) a tool for ordering HDF and HDF-EOS Data

Presented by:

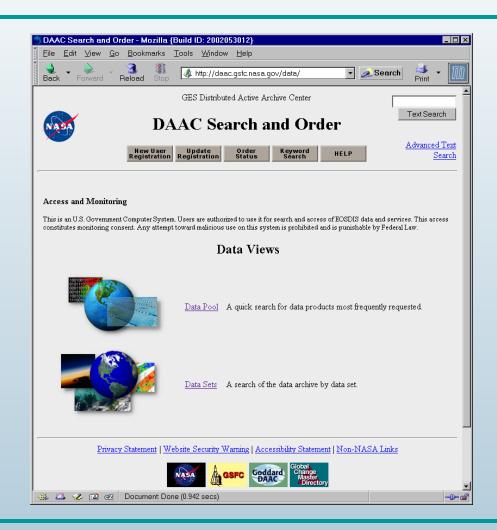
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Search and Order Interface a.k.a. WHOM

- Web-based interface to GES DAAC data holdings
- Hierarchical organization of data into tables allows for navigation of data
- Ordering Mechanism places selected data into "shopping cart"



WHOM Advantages

- Hierarchical structure allows one to quickly navigate to data of interest
- Easily identify temporal and spatial data coverage via calendar and color-coded map tools
- High speed searches and results returned (catalog is local)
- On-demand subsetting (e.g. MODIS L1B)
- On-the-fly subsetting (e.g. MODIS L3 Ocean)
- Customizable pages by data set or product
- Access to data pool (direct ftp downloading)

Primary Data Sets

Data Set	Format	Temporal Coverage
AVHRR Pathfinder	HDF (binary subsets)	Jul 1981 to Oct 2001
CZCS	Binary	Oct 1978 to Jun 1986
DAO	Binary	Mar 1980 to Nov 1993
MODIS (Terra and Aqua)	HDF-EOS, HDF (binary and HDF-EOS subsets)	Feb 2000 to Present
SeaWiFS	HDF	Dec 1996 to Present
TOMS	HDF	Nov 1978 to Present
TOVS Pathfinder	HDF (binary subsets)	Nov 1978 to Jul 1995
TRMM	HDF	Dec 1997 to Present
UARS	Binary	Sep 1991 to Sep 2001
DAS	HDF-EOS	(coming soon)
AIRS	HDF-EOS	(coming soon)
SORCE	HDF5	Jan 2003 (launch)
Aura (HIRDLS, MLS and OMI)	HDF5-EOS	Jan 2004 (launch)

WHOM Tutorial Starting Point

Web Address:

http://daac.gsfc.nasa.gov/data/

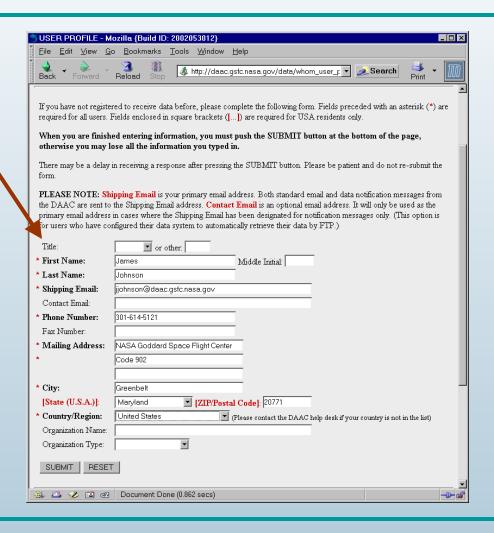
- If you're not registered, click on "New User Registration" first
- Then choose a "View"
 - Data Set or
 - Data Pool



WHOM Registration

Before one can order data from the GES DAAC one needs to fill out the registration form

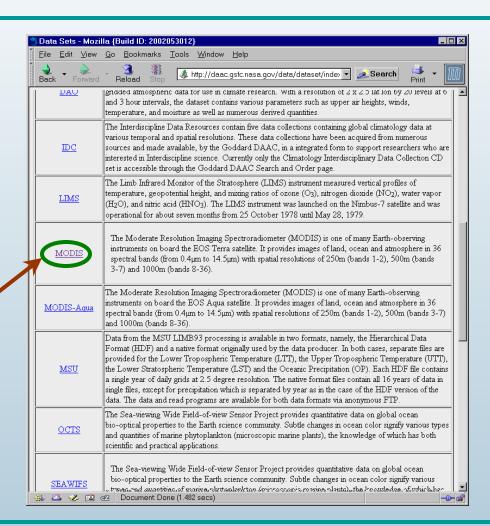
Information is only used for mailing out data orders or for contacting user regarding recent orders (see disclaimer)



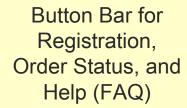
WHOM Data Set View

Table Listing of all GES DAAC Data Sets

Scroll Down and Choose MODIS (Terra)



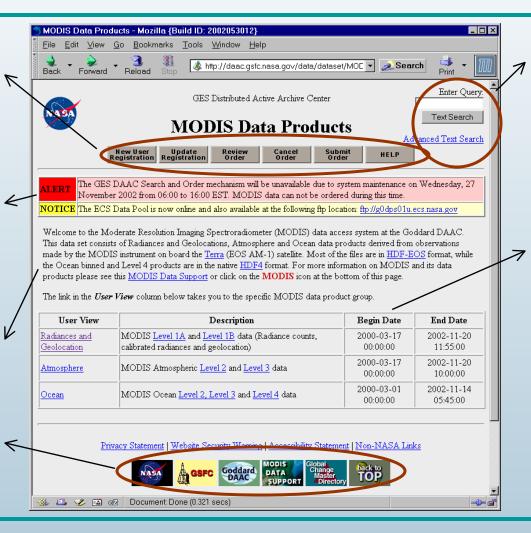
MODIS Products and WHOM Standard Features



Message Center with Warnings and Alerts

Page Description

Important Hyperlinks



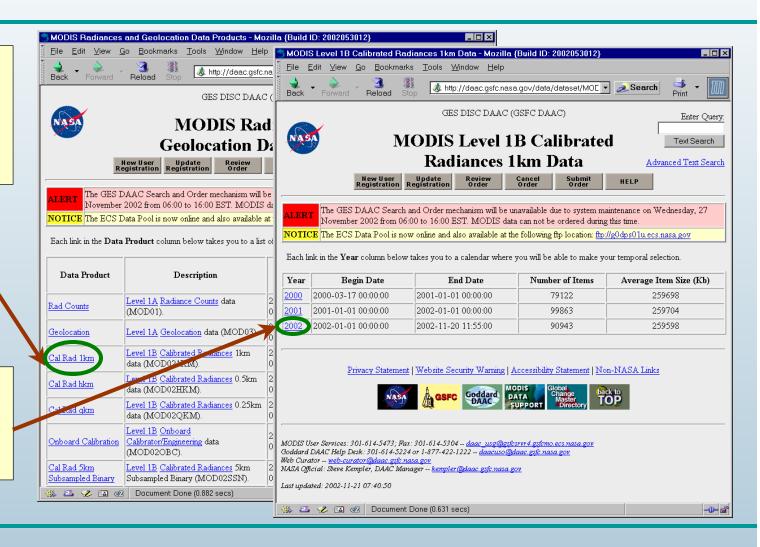
of all documents across GES DAAC

Table with "View" (here Products Grouped by Discipline),
Short Description, and Stats (here Date Range)

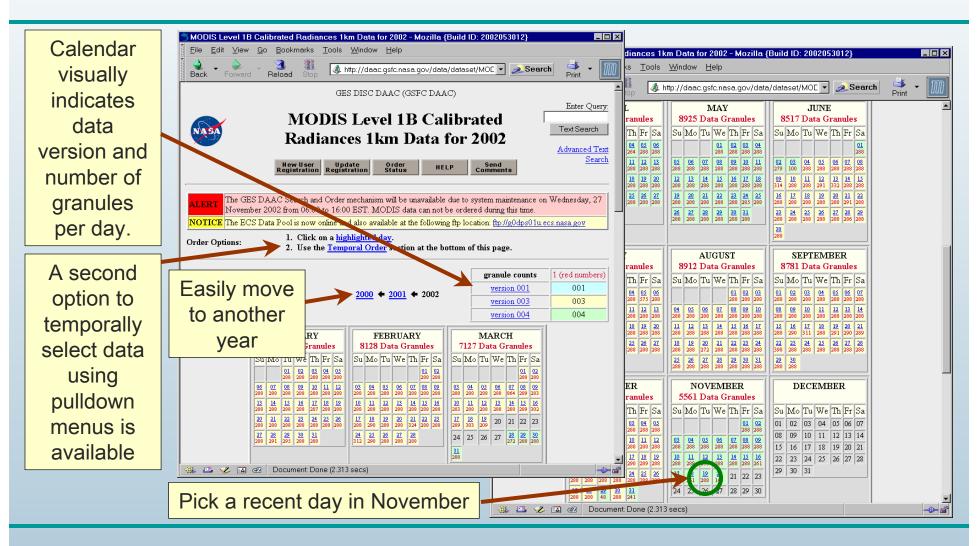
MODIS Radiances and Geolocation Data

Select Level 1B
Calibrated
Radiances at 1km
Resolution
(MOD021KM)

Next Choose a Year from the List (for this example pick 2002)



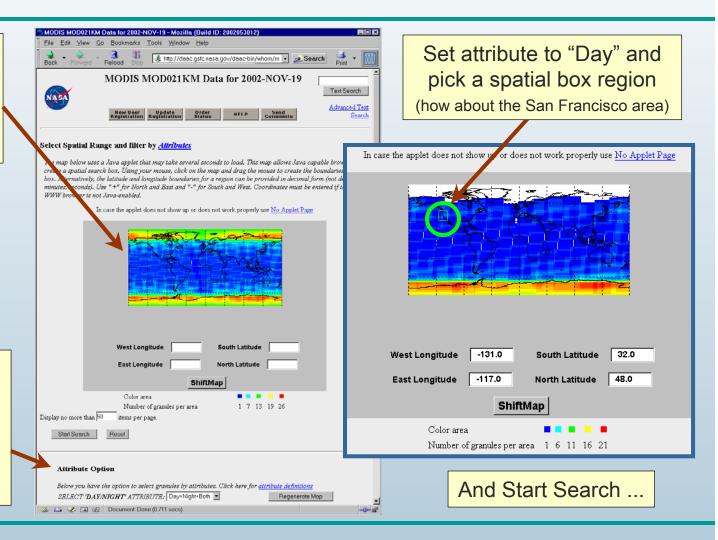
WHOM Calendar



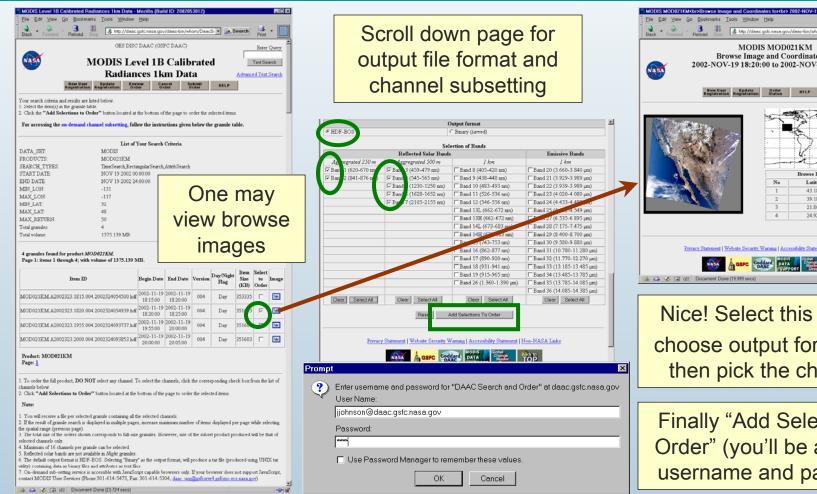
WHOM Spatial Search

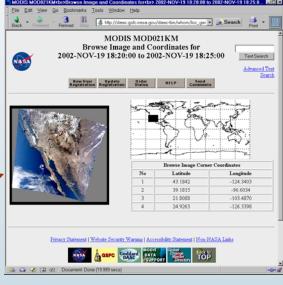
Color coded map shows granule coverage (Java and non-Java pages are available)

"Attribute Option"
allows type of granule
to be selected (Day,
Night and/or Both)
(click "Regenerate Map"
button if this is changed)



WHOM Spatial Search Results

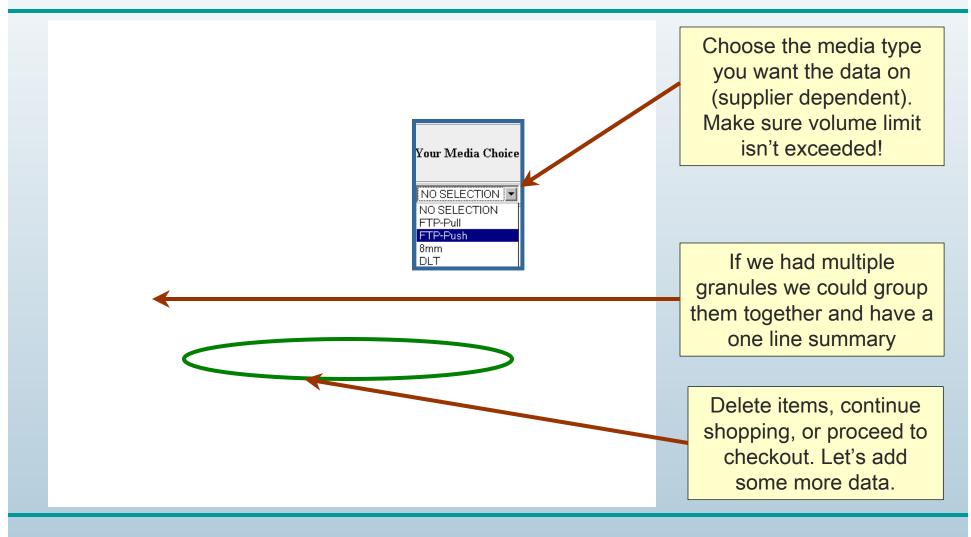




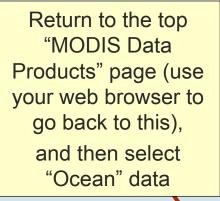
Nice! Select this granule, choose output format, and then pick the channels.

Finally "Add Selections to Order" (you'll be asked for username and password)

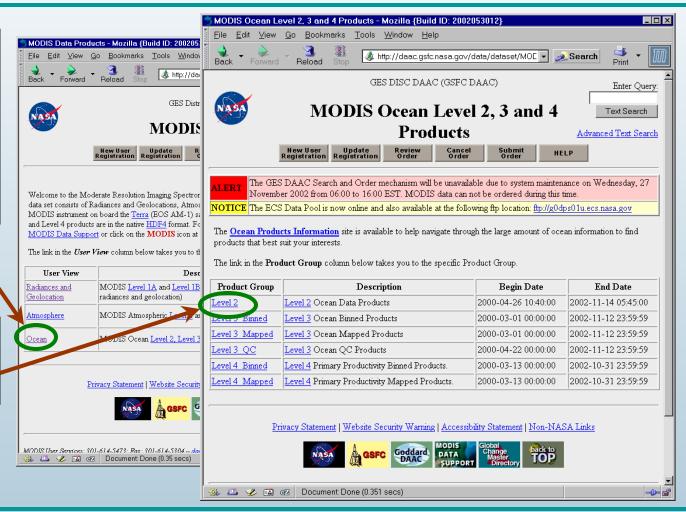
WHOM Current Order Status



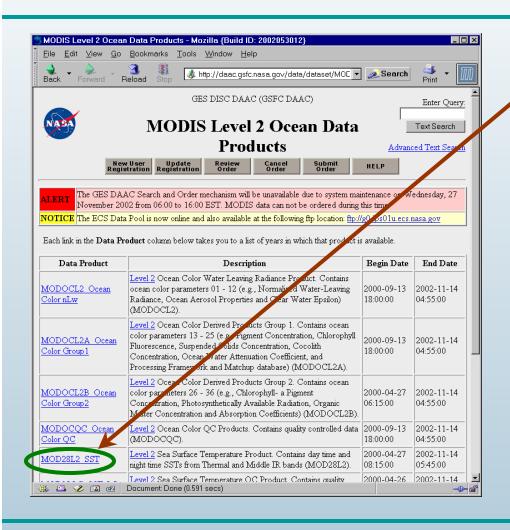
MODIS Ocean Products



Let's select Level 2
Ocean Data Products
for this example



MODIS Ocean L2 Products



For this example pick the Level 2 Sea Surface Temperature data product (MOD28L2 SST)

Then pick a year (2002)

	Each lir	nle in the Year column below takes you to a list of months for that year.				
	Year	Begin Date	End Date	Number of Items	Average Size (KB)	
	2000	2000-04-27 08:15:00	2001-01-01 00:00:00	31188	33398	
	2001	2001-01-01 00:00:00	2002-01-01 00:00:00	99514	33878	
	2002	2002-01-01 00:00:00	2002-11-14 05:45:00	88961	33883	

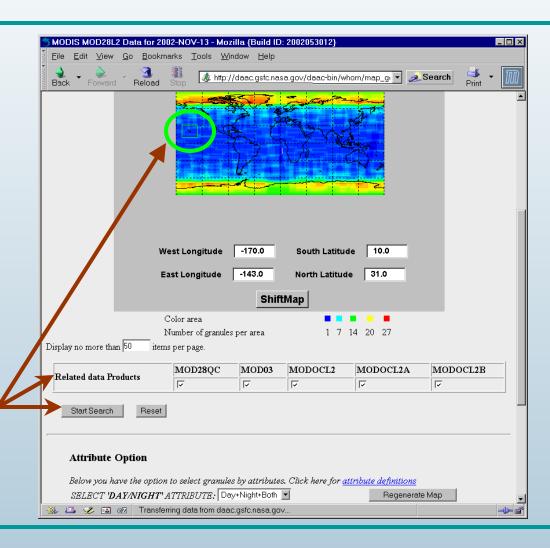
And choose a day from the calendar (November 13)



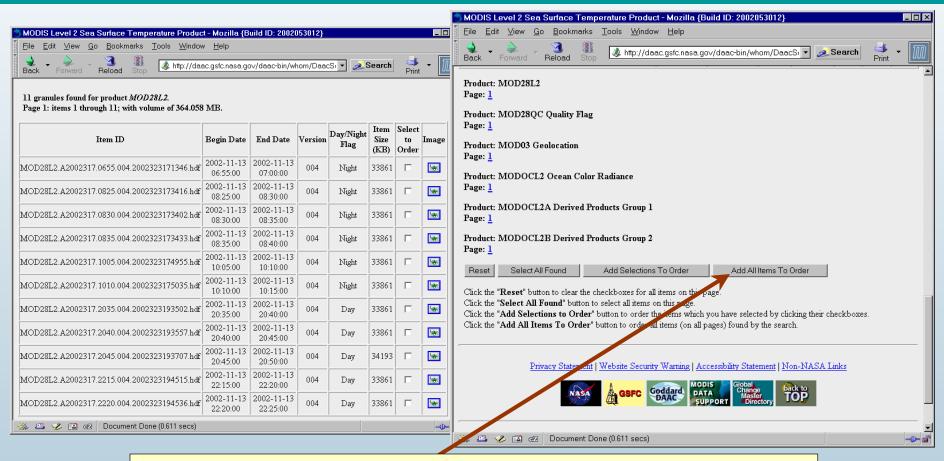
MODIS Ocean L2 Spatial Search

The MODIS L2 Ocean Spatial Search is a bit different, in that it includes a set of additional recommended data products to order (this product doesn't include geolocation information, thus the geolocation product MOD03 is included as one of the recommended products)

Let us keep the additional recommended data products, choose a region centered around Hawaii, and start the granule search

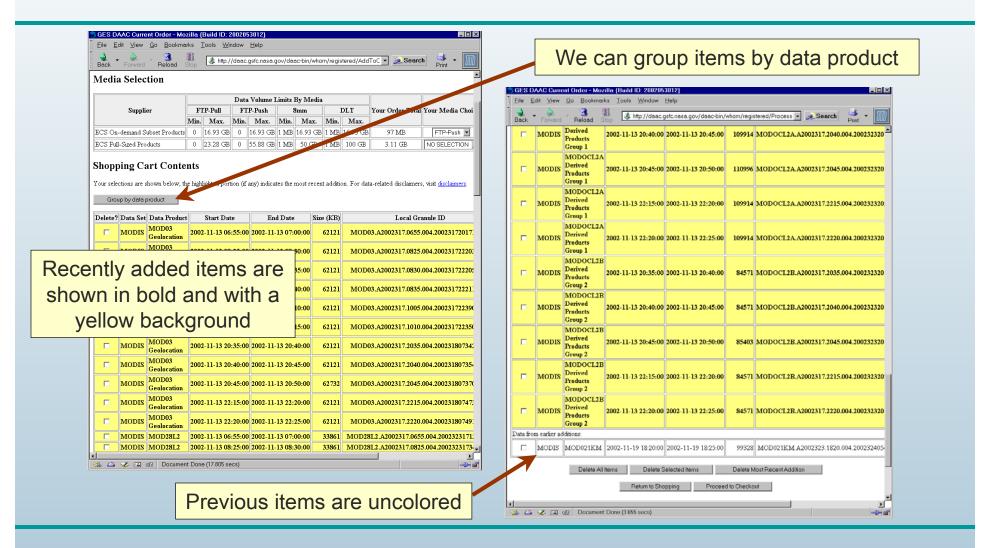


MODIS Ocean L2 Search Results



"Add All Items To Order" this time to add all granules with a single click

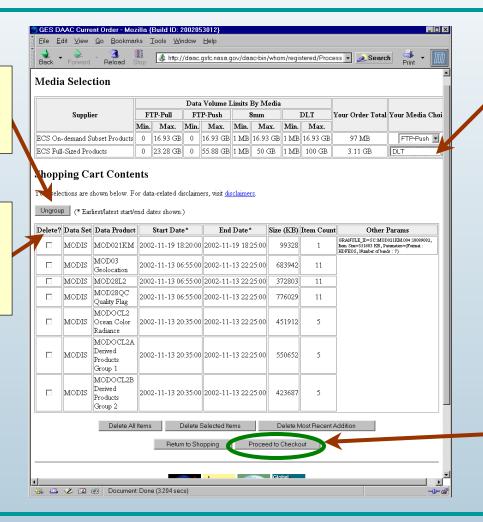
WHOM Additions to Order



Grouped Items in Order

One can ungroup the products into individual items again

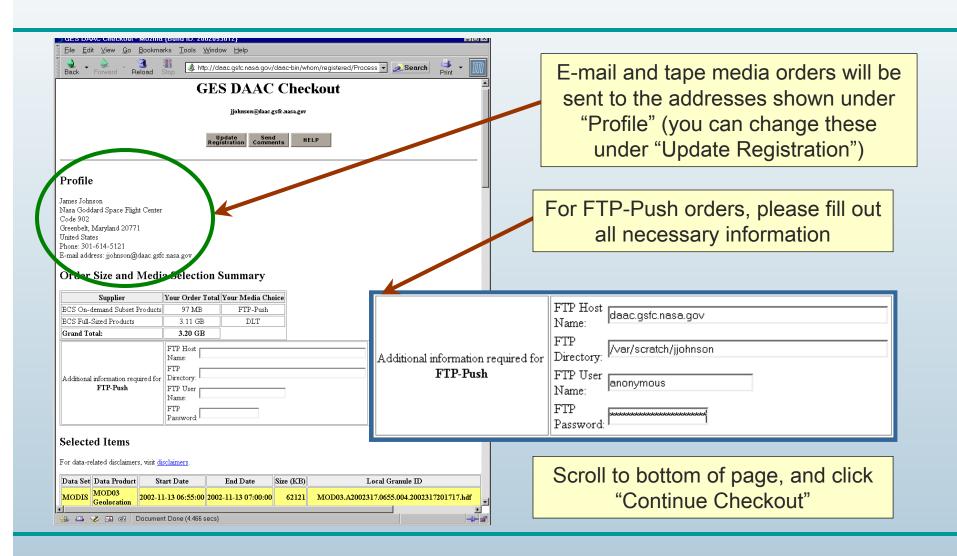
Items can be deleted from the order (here by product or by granule using the ungrouped page)



Remember to set the media type for newly added items

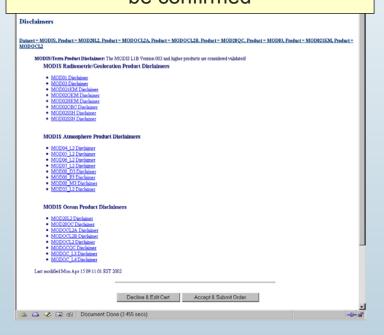
Proceed to checkout now

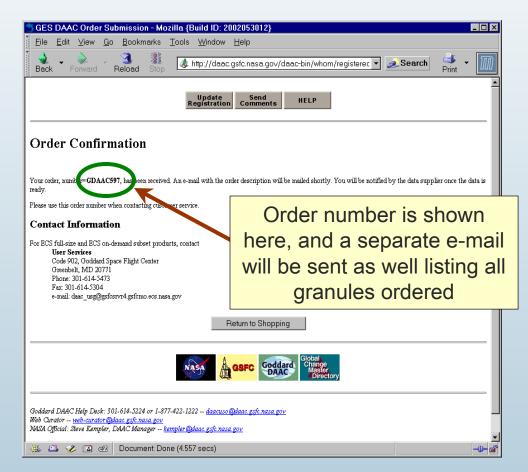
WHOM Checkout



WHOM Order Confirmation

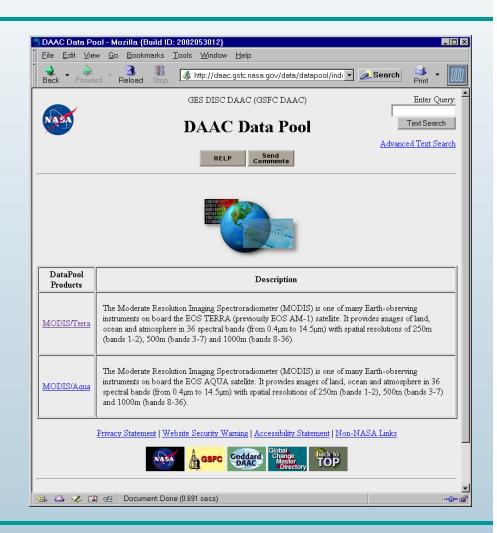
Some products require acceptance of a disclaimer before the order can be confirmed



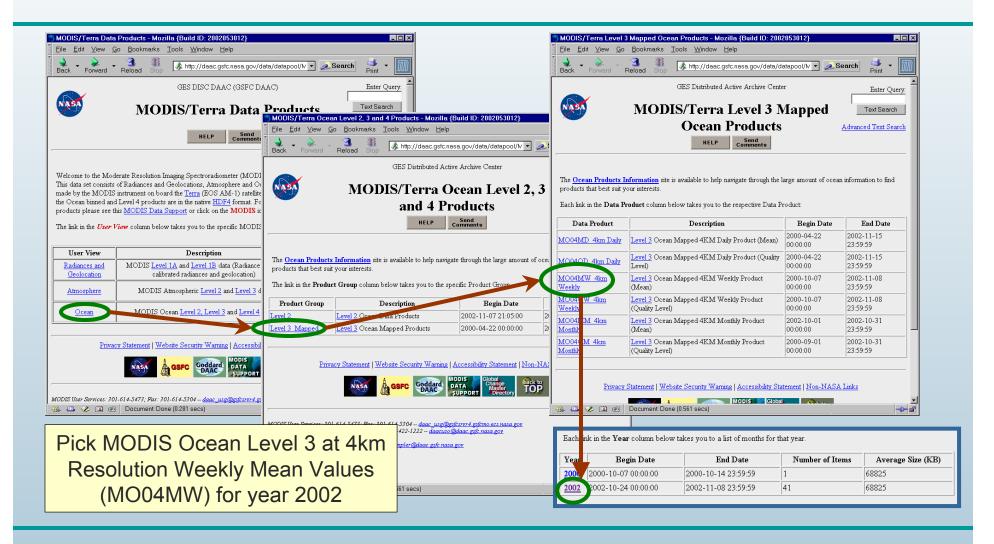


WHOM Data Pool Access

- Data Pool is an online FTP archive
- >50TB Space
- Holds recent popular items (currently only MODIS products)
- Quickly download data to your computer

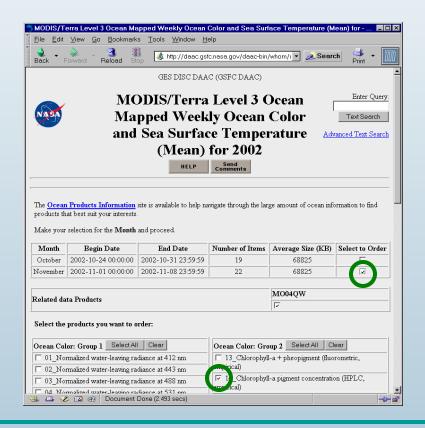


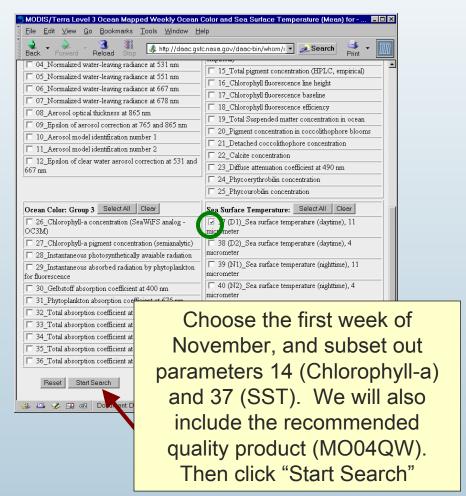
WHOM Data Pool Example



WHOM Data Pool with Parameter Subset Example

This is a multi-parameter product which can be easily subsetted by parameter

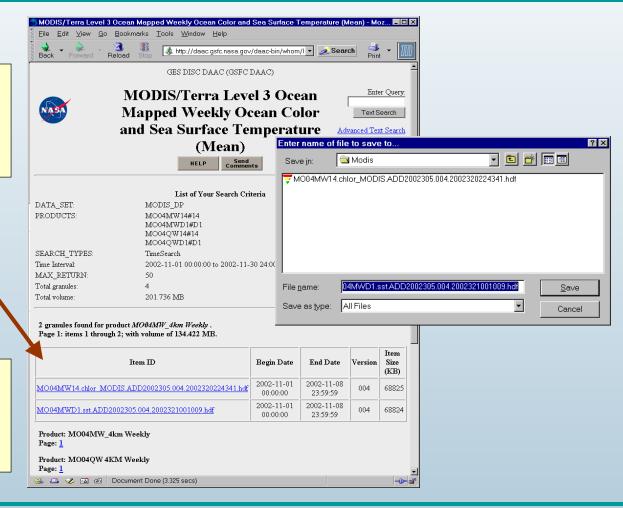




WHOM Data Pool File Download

From the search results page, click on the links under the Item ID column to download granules to your computer

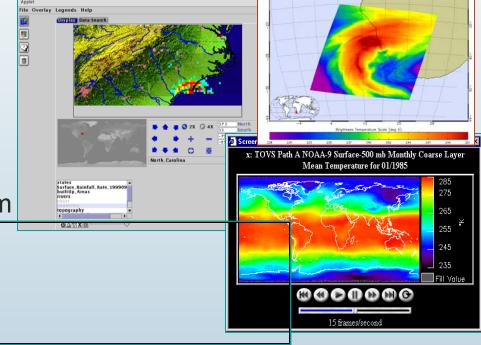
*Future release will allow for multi-file downloads bundled together using Unix tar and with compression (early 2003)



GES DAAC Developed HDF Tools

Online Tools:

- AIRS on-demand channel/variable subsetter
- AIRS Quicklook
- OASIS online data analysis
- TRMM online analysis system
- WebGIS
- Desktop Tools:
 - HDFLook-MODIS
 - simap
 - TRMM HDF



For more information on these tools please see our poster titled "GES DAAC HDF Data Processing and Visualization and Tools". This poster will also be presented at the AGU conference on Friday at 8:30 AM (OS51B-0176), plus come visit our booth.